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**SYSTEM, METHOD, AND COMPUTER PROGRAM
PRODUCT FOR STORING INTERNET ADVERTISEMENTS
AT A USER COMPUTER**

1. Technical Field

The present invention relates generally to Internet advertisements.

2. Background Of The Invention

In recent years, the Internet has been expanding at a furious pace. One reason for the rapid expansion of the Internet is the popularity of the free services that are available thereon. A company can fund free or reduced cost services on the Internet with revenue generated from advertisers. As a particular website increases in popularity and the viewer traffic increases, advertisers become more likely to increase their advertising budget in order to reach the growing audience.

Unfortunately, there exists a potential problem with the above-described business model that threatens to undermine the rapid expansion of the Internet. Specifically, this problem relates to the ineffectiveness of reaching target audiences on the Internet via the advertisements ("ads") displayed on web pages. If the perceived value of Internet advertising is reduced, it can trigger a reduction of advertising revenue which, in turn, could slow the rapid expansion of the Internet and reduce the availability of free services on the Internet.

One reason for the ineffectiveness of Internet advertising is the tendency for web sites to refresh advertisements displayed in advertising spaces with new advertisements. Since advertising revenue is often based on the number of ads displayed, the ads are refreshed quite frequently in order to display as many ads as possible. Typically, a user "responds" to an advertisement ("ad")

by pointing to it with a mouse and then clicking on the ad. This action will link the user to a website represented by the ad. Unfortunately, the faster the ads are displayed, the less likely it is that web users will have an opportunity to respond to them. For example, if a user is in the middle of a search or reading a particular web page displayed, it can be highly disruptive to immediately stop the task at hand and click on an ad that piques his or her interest. However, when the user is finished with the particular task he or she may wish to click on an ad that was seen while working, but most likely that ad will not be displayed.

SUMMARY OF THE INVENTION

Having recognized the above drawbacks, the present invention provides the solutions noted below to one or more of them.

A method for storing Internet advertisements at a user computer includes receiving plural Internet advertisements at the user computer. Some of the advertisements include tags that, in a preferred embodiment, are Hypertext Markup Language (HTML) tags. The tagged advertisements are saved at the user computer. In a preferred embodiment, a button is displayed. When that button is toggled, saved advertisements are displayed. A user can scroll through the saved advertisements.

In a preferred embodiment, the saved advertisements include links to websites. When the saved advertisements are recalled, the user can access the websites by toggling on the links. Moreover, in a preferred embodiment, a previous button and a next button are displayed. The saved advertisements can be accessed when the previous button and next button are toggled.

In another aspect of the preferred embodiment of the present invention, a system for saving Internet advertisements at a user computer includes a server, a database, and a user computer. The database stores Internet advertisements and some of those advertisements include tags. The server transmits the Internet advertisements to the user computer. Moreover, the user computer includes a program for saving the Internet advertisements that include the tags.

In yet another aspect of the preferred embodiment of the present invention, a computer program device includes a computer readable means having logic means for receiving Internet advertisements. Some of the advertisements include tags. The computer readable means further includes logic means for saving the advertisements that include the tags.

In still another aspect of the preferred embodiment of the present invention, a method for viewing Internet advertisements at a user computer includes viewing a first banner advertisement and then, viewing a second banner advertisement. A request to view an advertisement history is initiated and in response thereto, the first and second banner advertisements are viewed again. The first and second banner advertisements are used to access respective web sites corresponding thereto.

The present invention will now be described, by way of example, with reference to the accompanying drawings, in which:

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a block diagram of a system architecture;

FIGURE 2 is a flow chart of the operating logic of the preferred embodiment of the present invention; and

FIGURE 3 is a view of a computer screen.

DESCRIPTION OF AN EMBODIMENT OF THE INVENTION

Referring initially to FIGURE 1, a system is shown and generally designated 10. As shown in FIGURE 1, the system 10 includes a first user computer 12 connected to the Internet 14 via a first modem 16. FIGURE 1 also shows a second user computer 18 connected to the Internet 14 via a second modem 20. It can be appreciated that the modems 16, 20 can be telephone modems, cable modems, DSL modems, etc. that provide connections to the Internet 14 by telephone line, television cable, LAN, WAN, T1, or any other means well known in the art.

As shown in FIGURE 1, a server 22 is also connected to the Internet 14. The server 22, in turn, is connected to a database 24. The server 22 transmits user requested information stored in the database 24 to the user computers 12, 18 via the Internet 14. In many cases, along with the information, the server 22 transmits advertisements ("ads") to the user computers 12, 18. These ads help defray the cost of providing the information, services, etc. to the users. Thus, the users can receive much information available on the Internet 14 for no fee or for a nominal fee. It is to be appreciated that numerous servers can be connected to the Internet providing information and services to the user computers on a nearly infinite range of subjects.

While in a preferred embodiment, the user computers 12, 18 are personal computers manufactured by International Business Machines (IBM), the computers 12, 18 can be any computers, including Unix computers, or OS/2 servers, Windows NT servers, or laptop computer. (Unix is a registered trademark of The Open Group in the United States and other countries. OS/2 is a registered trademark of International Business Machines Corporation in the United

States, other countries, or both. Windows NT is a trademark of Microsoft Corporation in the United States, other countries, or both.) Additionally, the computers 12, 18 can be hand held computers or any other devices that receive Internet content. Each user computer 12, 18 includes a series of computer-executable instructions, as described below, which will allow them to save 5 certain ads received via the Internet so that a user may peruse the ads at his or her leisure after spending time online.

The instructions may be contained in random access memory (RAM) within each computer 12, 18 or on a data storage device with a computer readable medium, such as a computer diskette. Or, the instructions may be stored on a magnetic tape, conventional hard disk 10 drive, electronic read-only memory (ROM), optical storage device, or other appropriate data storage device or transmitting device thereby making a computer program product, i.e., an article of manufacture according to the invention. In an illustrative embodiment of the invention, the computer-executable instructions may be written, e.g., using C++.

The flow charts herein illustrate the structure of the logic of the present invention as 15 embodied in computer program software. Those skilled in the art will appreciate that the flow charts illustrate the structures of computer program code elements including logic circuits on an integrated circuit, that function according to this invention. Manifestly, the invention is practiced in its essential embodiment by a machine component that renders the program elements in a form that instructs a digital processing apparatus (that is, a computer) to perform a sequence of 20 function steps corresponding to those shown.

Referring to FIGURE 2, the operating logic of the present invention is shown and commences at block 30 with a do loop, wherein for each user Internet session, the succeeding

steps are performed. At block 32, Internet ads are periodically displayed at the user computer 12. These ads are taken from the database 22 by the server 20 and transmitted to the user computer 12 via the Internet 14. Moving to decision diamond 34, each time an ad is displayed, it is determined whether the ad is tagged indicating that the ad is to be used for the display of an Internet "banner" advertisement. In a preferred embodiment, an HTML tag, e.g., "a href=" is used to identify these ads.

If, at decision diamond 34, the ad is not tagged, the logic moves to block 36 wherein after a predetermined period of time, a new ad is displayed. On the other hand, if the ad is tagged, the logic continues to decision diamond 38 where it is determined whether the tagged ad is a duplicate of a tagged ad previously saved at the computer 12. If so, the logic moves to block 36 wherein after predetermined period of time, a new ad is again displayed. If not, the logic proceeds to block 40 where a copy of the tagged ad is saved to the user computer 12.

Thereafter, the logic continues to decision diamond 42 where it is determined whether the user wishes to view the saved ads. If not, the logic returns to block 36 and a new ad is displayed after a predetermined period of time elapses. If the user wishes to view the saved ads, the logic moves to block 44 and the saved ads are displayed for the user's perusal.

It can be appreciated that the tagged ads may be captured and saved many ways. In one exemplary, non-limiting embodiment, the Internet browser includes an "ad history" file. A record within this file records the link information and image file name for the tagged ad. In conjunction with this file, a directory or folder for image files is created where the ad image files are stored. The ad images files can be saved in a browser "cache" memory for fast retrieval at a later time. In this embodiment, the user can specify preferences for the ad history file such as an

upper limit for the number of ads saved. When this upper limit is met, the oldest saved ad can be displaced by the newly saved ad. Thus, memory is conserved while still providing the user with a number of saved ads deemed to be sufficient by the user for most circumstances likely to be encountered while working online.

5 It can also be appreciated that the ads may be displayed in many ways. In one exemplary, non-limiting embodiment, shown in FIGURE 3, an "Ad History" button 46 is displayed on the Internet browser tool bar. Upon clicking the "Ad History" button 46, the user is presented with a menu 48 of previously displayed banner ads. The ads can be displayed in order from most recent to the oldest. The ads in the menu 48 can also continue to retain any hot link attributes that were
10 present with the original display of the ads.

15 In another exemplary, non-limiting embodiment, captured ads can be presented to the user one at a time within an "Ad History" window 50. This window 50 can include a "Previous" button 52 and a "Next" button 54 with which the user can navigate through previously displayed ads beginning with the most recent until he or she finds an ad or ads that may have caught his or her eye while working. The "Ad History" window 50 can also include a means for filtering previously displayed ads, so that only ads corresponding to one or more user selected attributes are eligible for display.

20 With the above logic in mind, it can be appreciated that when a user completes a task online, such as reading or searching for information, he or she can easily return to any interesting ads that were displayed while he or she was working. Thus, ads which previously may have gone unnoticed or unresponded to by a user may invoke a response - after the user is finished with a particular task.

With the configuration of structure described above, it is to be appreciated that system and method described above provides a means whereby Internet advertisements can be stored for later viewing by an Internet user. A user who may disregard a particular ad while working may find that ad to be appealing when viewed at his or her leisure. Thus, the effectiveness of Internet advertising is increased.

5 While the particular SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR STORING INTERNET ADVERTISEMENTS AT A USER COMPUTER as herein shown and described in detail is fully capable of attaining the above-described objects of the invention, it is to be understood that it is the presently preferred embodiment of the present invention and 10 thus, is representative of the subject matter which is broadly contemplated by the present invention, that the scope of the present invention fully encompasses other embodiments which may become obvious to those skilled in the art, and that the scope of the present invention is accordingly to be limited by nothing other than the appended claims, in which reference to an element in the singular is not intended to mean "one and only one" unless explicitly so stated, but 15 rather "one or more." All structural and functional equivalents to the elements of the above-described preferred embodiment that are known or later come to be known to those of ordinary skill in the art are expressly incorporated herein by reference and are intended to be encompassed by the present claims. Moreover, it is not necessary for a device or method to address each and 20 every problem sought to be solved by the present invention, for it is to be encompassed by the present claims. Furthermore, no element, component, or method step in the present disclosure is intended to be dedicated to the public regardless of whether the element, component, or method step is explicitly recited in the claims. No claim element herein is to be construed under the

provisions of 35 U.S.C. section 112, sixth paragraph, unless the element is expressly recited using the phrase "means for."

WE CLAIM: